Manitoba
Natural Resources

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PLANNING REPORT
ON NATURAL
RESOURCES

ROSSBURN
PLANNING DISTRICT

Technical Report 89-6

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PREFACE

Municipal Councils or established Planning District Boards are charged with the responsibility for municipal land use planning and development. This document has been prepared in response to a request from the local municipal planning authority for background material on the subject of natural resources for which the Department is responsible.

This document describes the natural resources in the study area, and identifies Provincial and Departmental concerns and objectives from a land use, development planning perspective. It offers for review, policies and guidelines to remedy, mitigate or anticipate issues and land use problems.

The bases for this report are the Provincial Land Use Policies dealing with natural resources and the policies of Manitoba Natural Resources.

Municipal planning is a consultative process, and the information and policies discussed in this document are offered as advice to the local authority in their land planning deliberations.

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FISHERY RESOURCES

I. PRESENT CONDITIONS/INTRODUCTION

Marshes, ponds, lakes and intermittent streams are apparent over much of the Rossburn Planning District (Map 1). Most of these waters are too shallow and nutrient rich to maintain permanent fish populations. Some lakes have sufficient depth, water quality and fish food to support limited trout farming ventures. Most of the larger lakes, except Rossman Lake, experience periodic winterkill. Surface area and depth data varies with seasonal and annual precipitation.

The fisheries potential of most waters in the Planning District have not been studied extensively nor has the extent of the angler harvest.

Rossman Lake

Rossman Lake is a seepage lake, lying in the Minnewasta River watershed. It is the most significant sport fishery in the District. It is mesotrophic to eutrophic in character and does not stratify thermally. Nuisance algae levels are erratic, but reportedly have become more of a problem in recent years. Various steps have been considered to limit aquatic weed and algae problems.

Present species include walleye, pike, perch and the common white sucker with natural reproduction maintaining all species. Fish stocking has occurred as early as 1937 and has continued periodically to 1987. Perch periodically show large peaks in abundance which may have contributed to reports of stunted populations in this lake.

Fish losses at the outlet stream has been reduced by the installation of a rock rubble "fence" at the outlet of Rossman Lake about 1980.

Arrow Lake

Arrow Lake is a seepage lake with intermittent discharges to Arrow Creek. Due to periodic winterkill, the fishery must be considered marginal.

Walleye stocking began in 1937 and has continued periodically up to 1989 with Arrow Lake having become a popular walleye and perch fishing area.

Tokaryk Lake

Tokaryk Lake is a seepage lake that receives intermittent flow from associated wetlands. It outflows in a southerly, ill-defined channel toward the upper Oak River. In the last 15 years, partial or complete winterkill occurred during three winters.

Local anglers have reported that the pike and suckers died out around 1959. These two species found their way back into the system, but it was not until 1970 when walleye were artificially stocked. Between 1970 and 1987, walleye were stocked on four occasions.

Olha Lake

Olha Lake is a seepage lake that drains to Tokaryk Lake. Due to its high winterkill risk, Olha has not been stocked since 1984. However, in high outflow years, fish from Tokaryk have been known to restock Olha Lake during the spring spawning run.

Patterson Lake

Patterson Lake is a seepage lake lying in the Oak River Watershed. A 1946 application for fish stocking indicated that about 15 years earlier, Patterson Lake carried an abundance of northern pike and suckers. Patterson lake was stocked with perch in 1954 and 1955, but this species did not survive. Experimental netting in 1985 caught no fish while further testing in 1987 produced one sucker.

Other Waters

Gundy and Duck Lakes are two winterkill waters with reasonable depth. Four unofficially named lakes (Lakes 57, 58, 59 and 60) are smaller, reasonably deep, winterkill lakes. Lakes 58 and 59 were stocked once with walleye fry that were to be transferred to non-winterkill waters after a summer of growth. No fish were recovered from either pond.

The above numbered lakes are reviewed here because they are small enough to be totally aerated if hydro is, or should be brought close to these waters. The availability of other fishing lakes in the area may make this option economically unattractive although, once aerated, different fish species could be stocked and add angling diversity in the Planning District.

Birdtail River

Of all the streams in the District, Birdtail Creek has the highest fishery potential. Unfortunately, flows are often low and intermittent, resulting in stranded winterkilled fish. Angling success is dependent on the long term suitability of habitat which is largely dependent on flow period and volume.

In most years, fish are unable to move upstream past the dam at Birtle. Economic factors, plus the dominance of low flow periods in most years suggests that improving upstream migration could result in a net loss of the fishing resource. This would result from the high probability of low summer flows, stranding and winterkill.

II. CONCERNS/OBJECTIVES

The shallow nature of existing waterbodies, intermittent flows, erosion, nutrient loading and drainage have impacted water quality and some fish stocks. Any factors that adversely influence water quality or quantity can adversely influence fish populations. Since demand is high and fishing opportunities are limited, existing fisheries and upstream watersheds should be protected from nutrient loading and contaminations.

Specifically, the fishery concerns/objectives are:

1. Fish are a renewable or replenishable Crown resource and it is incumbent upon the government, as the resource steward, to ensure that appropriate use is made of the resource and that the resource is passed on to future Manitobans in at least as vigorous a state as it was received by our generation.

2. To ensure the survival or improvement of fish stocks, subject to the effects of natural environmental changes and approved man-made environmental changes. Fish habitat associated with existing fish producing lakes should be protected and improved. Some procedures designed to prevent fish stranding (eg. Arrow Lake) and improved overwintering (eg. snow clearing or aeration) are encouraged. Winterkill lakes with future development potential should also be protected.

3. To maintain, enhance and diversify angling opportunities to Manitobans to meet existing and future demands.

4. To promote communications and co-operation between private landowners, the public, local government and Manitoba Natural Resources so as to achieve high standards of conservation practices.

IV. POLICIES/GUIDELINES

Although fisheries habitats are being stressed and have been reduced, what remains can be retained and enhanced by judicious use of land and water. In order to achieve the fisheries objectives and to mitigate and alleviate concerns, the following apply:

1. Fisheries habitat, spawning sites and nursery areas should be protected.

   a) Ditching and stream re-channelization should not be permitted in direct tributaries to the watershed capable of supporting spawning and nursery habitat. The construction of dykes as opposed to channel deepening and straightening shall be encouraged. Measures to limit nutrient and sediment inflow shall be encouraged.

   b) Land clearing, cultivation and development to the water's edge of streams, creeks and lakes shall be prohibited.

   c) Enrichment of natural waters (organic loading or siltation) as a result of agricultural run-off from all lands shall be discouraged.

   d) A buffer strip of natural vegetation 91.5 meters (300 feet) wide from the ordinary high water mark shall be maintained along spawning streams, creeks and lakes. As a minimum, buffer strip widths should be 12 meters (40 feet) plus 1.5 times slope gradient (%), along each side of the stream or waterbody. Development or maintenance of appropriate vegetative cover along waterways and lakes to prevent erosion, siltation and to reduce run-of shall be encouraged.

2. Shorelines subject to intensive use and development should be protected from excessive erosion and organic loading. Activities that discharge pollutants shall be restricted in their location and it may be required that precautionary safeguards that mitigate the pollutant be incorporated into the development activity.

3. The provision of additional access points and the protection of existing access for public use to increase angling opportunity shall be encouraged.

IV. IMPLEMENTATION

The objectives and policies with respect to fisheries shall be implemented as follows:

1. By assistance and advice on conservation practices by the staff of Manitoba Natural Resources.

2. By public and private co-operation through management and development agreements.

3. By the Board and Councils through the judicious use of restrictive zoning by-laws, subdivision control procedures and the issuance of development permits.

FORESTRY RESOURCES

I. PRESENT CONDITIONS/INTRODUCTION

The Rossburn Planning District falls within the Aspen Parkland Forest Section, Forest Management Unit 07 as defined in the Manitoba Forest Inventory Classification System, 1980 (Map 2). A Forest Inventory Report on the area was completed in 1987 for both Crown land and private land. Forest Inventory information is available and should be of benefit to landowners in the area. Field forest measurements which were required on private lands to complete the forest inventory were only done with permission from the landowners.

For areas in close proximity to population centres, landowners with forested land on their holdings might consider growing trees as a crop, or managing existing forest areas as woodlots. This is particularly true for land unsuitable for other agricultural purposes but still capable of supporting tree growth.

While trees and forests have value as a renewable cash crop, their presence is valuable in other ways. These include control of precipitation run-off and retarding snow melt to lessen flood risk; erosion control both water and wind; a habitat for wildlife; and recreation opportunities for people. Furthermore, forest harvesting operations can be done in a manner that will enhance all forest values; however, it is essential that fire be kept out, destructive grazing be avoided, and any utilization or disposal of elm trees be in conformance with The Dutch Elm Disease Act and Regulations.

II. CONCERNS/OBJECTIVES

Principal objective:

To effectively manage and protect forested lands, and to maintain and enhance the overall benefits accruing from the forest resource.

Specific objectives:

1. To sustain the integrity of the forest land base in Manitoba and to maintain the forest resource in a healthy and productive state.

2. To encourage responsible use and husbandry of the forest resource, to obtain maximum achievable net benefits including employment and recreation opportunities, sound land use practices and soil conservation.

3. To assist in the creation and sustenance of self-supporting industries by providing appropriate tenure and access to a forest resource managed under sustained yield practices.

III. POLICIES/GUIDELINES

The general policy applying to forests on Crown land will be to improve sustained yield and intensive management practices beginning with the more productive and accessible forest sites in the Province as economic conditions and funding support permits.

The general policy applying to forests on private land will be to encourage efficient and effective utilization of these timber resources as cash crops, and as a soil conservation land use technique for controlling erosion, etc.

IV. IMPLEMENTATION

The objectives and policies as outlined shall be addressed and implemented as follows:

1. By the Board and Councils through the judicious use of restrictive zoning by-laws, subdivision control procedures and the issuance of development permits which recognize the intent of the concerns and objectives identified.

2. By encouraging good forest management practices on all forested land.

3. By maintaining the integrity of the forest land base.

4. By assistance and advice on conservation practices by staff of Manitoba Natural Resources and by public and private co-operation through management and development agreements.

OUTDOOR RECREATION

I. PRESENT CONDITIONS/INTRODUCTION

Rossburn Planning District has extensive resources for viewing wildlife and landscape and for hunting. However, natural facilities for more intensive forms of outdoor recreation are mostly lacking.

In general, lands in the District are in Canada Land Inventory Classes 5 and 6 ("moderately low" and "low", respectively) as to their capability to support extensive outdoor recreation (Map 1). However, about 16 sections in the area north of Mears and east of Ruthenia are, by virtue of their more irregular topography, of higher capability: C.L.I. Classes 3 and 4 ("moderately high" and "moderate", respectively). Also, portions of the shoreline and backshore of Fishing Lake are in Classes 3 and 4, and here suitable activities include boating, swimming and other beach recreation.

In these circumstances, all lands in Classes 3 and 4 in the District merit protection in order to afford residents of the District a wide range of recreational opportunities. Because of the high demand, generally experienced, for beach-oriented and seasonal residential uses of recreational opportunity lands, particular attention needs to be paid to parcels suited for these purposes in and adjacent to the District, in order to maximize their value while guarding against degradation.

No part of the Planning District is far from recreational facilities offered by Riding Mountain National Park. Nevertheless, it is in the best interests of the Planning District to prevent any misuse of limited lands in the District having exceptional recreational value. Most of this property is in private hands, so that the Planning Board must use mechanisms at their disposal to preserve and protect such recreational opportunities as the area affords. In addition to direct benefits which residents receive from leisure use of the area, there is the material consideration of expenditures of non-resident hunters and nature viewers. Particularly in the matter of hunting for wild ungulates (elk, moose, deer), is the quality of lands, from a recreational perspective, of importance in economic terms.

II. CONCERNS/OBJECTIVES

Future development of the District should undertake to maximize its potential for outdoor recreation by maintaining or enhancing environmental quality and by insuring the optimum development of outdoor recreational resources based on the natural capability of the land. Provision of recreation opportunities for local residents should be a high priority. Identification, maintenance and protection of the basic resource is most important. Once identified, higher quality lands should be designated in whole or in part for recreational purposes. Development activities which would tend to degrade these lands should be prohibited. Areas of highest potential for present and future recreation opportunities (lands in CLI Classes 3 and 4), and access routes to them, must be safeguarded through policies which are sensitive to and supportive of outdoor recreation. If these valuable resources are disrupted or damaged by conflicting developments, the

recreation opportunities and benefits will be diminished, very likely permanently.

The following are specific concerns/objectives:

1. Lands having better recreational capability or attractive features should be regulated through resource use policies which give a high priority to outdoor recreation.

2. Outdoor recreation resources should be developed in a manner which facilitates recreational opportunities for residents of the area, and maximizes their economic benefits.

3. Sensitivity of the resource to development should be considered. Development should only be allowed to the carrying capacity of the resource.

4. Recreation lands must be afforded protection from adjacent land uses which would diminish recreation opportunities in quality or quantity. This includes the provision of adequate open space, privacy and protection from the intrusion of incompatible land uses.

5. The right of public access to high-value recreation areas should be maintained wherever possible, especially to shorelands capable of supporting beach activities. Highest priority should be placed upon provision of public day-use facilities and campgrounds adjacent to beach areas.

6. Road corridors to recreation areas should be identified and afforded protection in order to maintain the integrity of recreation opportunities.

7. Areas having higher recreation potential must be protected from unplanned, sporadic residential development.

III. POLICIES/GUIDELINES

1. Lands having relatively good capacity for outdoor recreation will be identified and will be considered for recreational development. Other land uses may be allowed, but these will be considered in light of their potential effects on outdoor recreation interests. Buffer zones around recreation areas will be provided for in the zoning by-laws. The development will suit the topography and consideration will be given to conserving natural vegetation, drainage features and the natural lay of the land.

2. Emphasis will be placed on the provision of additional public recreation areas, particularly a park area which provides access to a beach. The possibility of acquiring shoreland, or access to shoreland having Class 3 capacity for beach activities will be considered.

3. Recreation developments will be permitted only to the carrying capacity of the resource being utilized, as determined by the Council or Board of the Planning District. In each case, it will be necessary to recognize and avoid or protect against natural hazards such as flooding, poor drainage, high water table, shoreline erosion, and the like, which might endanger public health and safety, cause property damage, or make municipal servicing more costly. No structure or buildings shall be built below the 100 year flood level nor on land subject to other physical hazards.

4. Recreation developments will be planned and carried out in a manner which minimizes interference with wildlife habitat, particularly waterfowl migration stopping areas.

5. Control will be exercised in approval of seasonal or permanent rural residential development. Specific areas for such development will be identified and promoted in order to avoid uncontrolled and dispersed residential spread, as scattered or random residential development would generally be in conflict with efficient use of recreational resources, and would increase municipal servicing costs unduly. Permanent non-farm and seasonal residences should not be allowed outside of planned and designated sites; existing residences of these types outside of designated areas will be identified as non-conforming uses.

6. Existing areas and routes of public access will be identified and maintained or improved. Development policies respecting lands along access routes to recreational areas will not permit the quality of the recreational opportunity to be degraded or endangered. Strip development along provincial and major municipal roads will not be allowed in these areas.

7. Agricultural land use practices and policies applying to areas within or in close proximity to important outdoor recreation areas will not adversely affect the recreation opportunities. Equivalent limitations will apply to other land use practices in these areas.

IV. IMPLEMENTATION

The policies of this section shall be implemented through the following:

1. Adoption of zoning by-laws to protect designated park and recreation areas.

2. Promotion of public acquisition of shoreland park areas.

3. Subdivision control procedures including requirements for public open space and shoreland reserve dedications.

4. Development agreements.

Consultation with staff of Manitoba Natural Resources is encouraged.

WATER RESOURCES: GROUNDWATER

I. PRESENT CONDITIONS/INTRODUCTION

The groundwater resources of the Planning District are adequate for existing requirements and some new development. The resources, however, are not uniformly distributed. While in some parts of the District, aquifers with an abundant supply of good water are readily available, in other parts, aquifer yield is minimal and aquifers are not easy to find. Groundwater quality ranges from good to poor and is generally acceptable for domestic and farm use. The general hydrogeological setting of the District is shown in Figure 1 and the dominant aquifers are indicated in Map 3.

The most extensive aquifer in the area is formed by the shale bedrock that underlies the entire District, with an adequate yield for domestic and farm requirements. At Rossburn, and in an area extending north and southeast of the Town, a well yield of 2 L/s to 15 L/s (25 to 200 I.G.P.M.) is fairly common. Depth to the shale aquifers ranges from less than 20 meters to more than 80 meters. Deep wells are common in the eastern part of the District.

Sand and gravel aquifers are the most common source of water in the eastern part of the District where the shale aquifer is at considerable depth. In this area, most of the sand and gravel aquifers are 40 meters to 60 meters below ground level with adequate yield for domestic and farm requirements.

In most of the District, the aquifers are covered by a thick clayed glacial till layer and are not subject to pollution by infiltration of pollutants from the surface. But where there is only a thin layer of glacial till as in the Birdtail Creek Valley and in a few other small areas, pollution will occur. These areas are shown as groundwater pollution hazard areas in Map 4.

II. CONCERNS/OBJECTIVES

The total groundwater supply in the District is adequate for present requirements and for moderate new development. Groundwater is the source of municipal water supply for the Town of Rossburn and for domestic and farm requirements. Hence, the overall concern is groundwater resource management and protection to assure adequate supply for existing users and for potential development. In most of the area, the aquifers developed for water supply are overlain by sufficiently thick low permeability surficial deposits to prevent pollution of the aquifers. In several areas, however, shallow aquifers subject to pollution may exist. These areas are considered to be groundwater pollution hazard areas.

Principal and specific objectives are:

1. To manage the aquifers in a manner that would not deprive existing users of their water supply and would not have a detrimental effect on aquifer potential.

2. To maintain groundwater withdrawal within acceptable limits.

3. To prevent aquifer pollution.

III. POLICIES/GUIDELINES

1. Intensive development and high-capacity wells should be permitted only in areas where they will not cause a reduction in water supplies for existing users.

2. Groundwater consumption should not exceed the total sustained yield of an aquifer.

3. Wells should be installed in a manner that would not have a detrimental effect on aquifers.

4. Activities that may cause pollution under normal operating conditions or by accident should not be permitted in the groundwater pollution hazard areas unless it can be proven by adequate field investigations that the proposed activities will not cause pollution of existing or potential groundwater supplies in the area.

IV. IMPLEMENTATION

Aquifer management is implemented by the Water Resources Branch of Manitoba Natural Resources under the provisions of the Groundwater and Water Well Act and the Water Rights Act.

Well construction in respect to prevention of detrimental effect in aquifers is regulated by the Water Resources Branch of Manitoba Natural Resources under the provisions of the regulations made under the Groundwater and Water Well Act.

Aquifer pollution prevention is implemented by Manitoba Environment.

WATER RESOURCES: SURFACE WATER

I. PRESENT CONDITIONS/INTRODUCTION

The Rossburn Planning District comprises primarily the Birdtail Creek drainage basin, but also includes the headwater areas of the Little Saskatchewan River, Oak River and Minnewasta Creek watersheds (Map 5). There are numerous sloughs and small lakes in the area as a result of the "knob and kettle" topography of the area.

Minor flooding may occur in some areas of the District, adjacent to streams or in poorly drained areas, but it is confined primarily to agricultural lands. Erosion and instability problems may occur if clearing or unsuitable agricultural practices take place on some of the steeper valley slopes.

All waterways in the District are under municipal jurisdiction.

II. CONCERNS/OBJECTIVES

Flooding and water erosion are not among the major concerns or issues in the District. However, should development or other unsuitable land uses occur in hazardous areas, this may lead to acceleration of environmental damage, interference with natural processes, public expenditures for remedial works or assistance, waste of resources, and personal loss and hardship. To mitigate against these potential expenses and damages, the following objectives are established.

1. To minimize personal hardship and inconvenience and adverse affects on public health and loss of life.

2. To minimize property damage and public expenditures for relief or protection in areas subject to flooding, water erosion, wind erosion, bank instability, landslide or subsidence.

3. To restrict activities which would accelerate or promote damages arising from causes such as erosion or bank instability.

4. To acquire access to all waterways in order to carry out public works projects when required.

5. To maintain the natural capacity of the streams to convey flood flows.

6. To encourage the preservation of natural vegetation along the banks of waterways.

III. POLICIES/GUIDELINES

1. Development in areas which, in the opinion of the Board or Council may be subject to physical hazards, shall generally be limited to agricultural uses or open space uses. Under special economic or social circumstances, the Board or Council may permit more intensive development if the hazard is eliminated or protected against. Development in hazardous areas shall

be subject to the following requirements:

a) If the land is subject to flooding all permanent structure must be located on land which has been raised by fill to an elevation at least 0.6 meters above the 100-year flood level.

b) Land which may be eroded away within a period of 50 years must be excluded from development unless it is demonstrated, to the satisfaction of the Board or Council, that the erosion process has been halted.

c) Development shall not be permitted on lands subject to bank instability, landslides or subsidence.

d) All structures and services shall be protected against damage and shall be functional under hazard conditions.

2. Notwithstanding (1), development will not be permitted if, as a result of the development;

a) there is an added risk to life or safety, or

b) water flow, flow velocities or stages are adversely altered, obstructed or increased.

3. Activities such as dumping, excavation, clearing, cultivation, or excessive grazing which would accelerate or promote dangerous erosion or bank instability will be prohibited.

4. In areas where the specific hazard has not been defined, permanent structures shall be set back from all waterways a distance of at least 10 times the height of the bank above channel grade or 60 metres whichever is greater unless an engineering investigation shows that these limits may be reduced.

IV. IMPLEMENTATION

The Policies shall be implemented by means of, variously, zoning by-laws, conditions of subdivision approval, the issuance of development permits and building permits, development agreements and such programs as are determined from time to time by the Board or Council to be necessary and not in conflict with the provisions of any part of the Plan.

WILDLIFE RESOURCES

I. PRESENT CONDITIONS/INTRODUCTION

The Rossburn Planning District contains portions of two physiographic subdivisions; the Riding Mountain End Moraine, and the Newdale Till Plain. The End Moraine is characterized by irregular hilly topography with moderate to steep slopes. Numerous small lakes and peaty deposits occupy depressions. The Newdale Till Plain comprises gently undulating to moderately sloping and broken ground moraine. Topographic patterns vary from ridge and swale to hummocky and knob and kettle terrain. The whole of the District lies within the Assiniboine River watershed, with the Birdtail Creek being the primary tributary. The upland areas range to over 620 metres (2,100 feet) along Riding Mountain, descending to less than 510 metres (1,700 feet) in the Birdtail Creek valley in the southwestern portion of the Planning District.

Native vegetation of the lower slopes of Riding Mountain area area a broad-leaved forest, containing aspen and other hardwoods. This vegetative belt graduates into mixed woods above the 570 metre (1,900 feet) contour. The mixed woods are comprised of stands of aspen, poplar, white birch, white and black spruce and jackpine. Plants characteristic of freshwater wetlands include, northern reedgrass, redtop, foxtail barley, cattail, bulrushes, sedges, rushes and willows. Saline wetlands are characterized by red samphire, arrow-grass, bulrushes and pondweed.

There are eight quarter sections of Crown land designated by Order-in-Council as Wildlife Management Areas in the Rossburn Planning District. These lands are located in close proximity to Riding Mountain National Park and as such are highly prized by both subsistence and licensed hunters as well as other wildlife users.

The high value of these lands for wildlife is reflected in their Canada Land Inventory capability ratings. Approximaely two thirds of the Planning District is rated as Class 1 for ungulates (production or winter range); elk, moose and white-tailed deer. (Map 6) Land capability for waterfowl production ranges from Class 2 to Class 6, with the majority of lands being Class 3 and 4. (Map 7) The area is also habitat for a wide variety of other species including furbearers, grouse, songbirds and birds of prey. The wooded cover and the proximity to Riding Mountain National Park make the District's lands attractive for use by both wildlife and the public. Over the long term it is hoped that many of these high quality wildlife lands will meet the requirements for designation as Wildlife Management Areas.

II. CONCERNS/OBJECTIVES

The primary concern relative to many species of wildlife is that of habitat loss or degradation. Illegal harvest, disturbance of nests, use of pesticides and herbicides, crop depredation, problem animal controls, hunter-landowner relations and present use of the land base are all topics of concern to wildlife.

Rates of habitat loss in this Planning District have been high in recent years and this poses a serious threat for wildlife. This habitat loss has been

dramatically illustrated by comparison of satellite imagery between 1981 and 1985. During that period, 19.4 percent of the wooded cover was removed in a four township sample block; this represents an average annual loss of nearly five percent. This continued pressure on habitat in the Planning District enhances the value of remaining wooded cover on the local Crown and private lands. To that end it is the objective of Manitoba Natural Resources to promote the retention of wildlife cover in the Planning District in general with special emphasis on protection of habitat on Crown lands and undeveloped road allowances in the area.

It is important to recognize that more and more people are becoming interested in nongame species and particularly birds. Significant economic benefits may be available in the service of this group of people.

Objectives

The following objectives should serve as a guide in land use planning for areas affecting wildlife:

1. To maintain populations of each species at present levels through the maintenance of proper habitat conditions for all species. No species presently found within the District should be reduced to the point where it may be exterminated.

2. To encourage wildlife habitat maintenance on private lands, unused road allowances and Crown land.

3. To encourage education regarding the value of wildlife and wildlife habitat.

4. To minimize wildlife depredation within the District by effective planning.

5. To promote communication and co-operation between private landowners, all groups and individuals interested in use of the resource, local government, and Manitoba Natural Resources so as to achieve high standards of conservation practices.

III. POLICIES/GUIDELINES

1. The Planning District should protect Class 1, 2 and 3 wildlife wintering areas.

2. The Planning District should protect from clearing all shrub or tree cover on lands with an agricultural capability of Classes 4, 5 and 6.

3. Windbreaks, hedgerows, drainage ditches, road allowances, small blocks of wooded cover, rivers and streams are the primary habitat left in areas where there is intensive cultivation. These areas should be maintained for the production of wildlife.

4. Landowners and the Planning District should be encouraged to retain natural marshes and ponds in their native condition, rather than attempting to drain them.

5. Areas prone to waterfowl or deer depredation should be identified and landowners encouraged to work cooperatively with N.R.O. staff of Manitoba Natural Resources in an attempt to reduce or minimize losses.

6. Significant deer wintering areas should be afforded protection as follows:

   a) Erosion prone lands shall be left in a natural state. Use of these areas shall be such that no substantial harm is done to wintering deer habitat.

   b) Agricultural lot sizes of between 80 to 160 acres and agro-residential family splits are considered appropriate.

   c) Farming practices which minimize soil erosion shall be encouraged.

   d) A minimum of 20% of each quarter section should be maintained in natural woody vegetation, being as interspersed as possible with cultivated land.

7. To protect the integrity of the Wildlife Management Areas, a 1/2 mile surrounding buffer zone should be recognized. Within this buffer zone;

   a) no intensive residential, recreational, industrial, agricultural or commercial development or subdivision potentially detrimental to the character or experience associated with the Wildlife Management Area shall be permitted,

   b) in general, subdivisions should be limited to a minimum of 80 acres, although agro-residential family splits may be considered, and

   c) lands should be retained in uses compatible with the rural setting.

7. The use of pesticides and herbicides should be carefully controlled so that wildlife habitats and natural waterbodies are not degraded or become dangerous to wildlife.

IV. IMPLEMENTATION

The objectives and policies of the District with respect to land use and wildlife resources should be implemented as follows:

1. By assistance and advice on conservation practices by staff of Manitoba Natural Resources and Manitoba Agriculture.

2. By public and private co-operation through management and development agreements.

3. By the Municipal Councils and Planning District Board through the judicious use of zoning bylaws, subdivision control procedures and the issuance of development permits.

CROWN LAND

I. PRESENT CONDITIONS/INTRODUCTION

This section describes the Crown lands in the Planning District, providing an inventory of Crown lands and present commitments. Additionally, this section will discuss the authority for Crown lands, the legal aspects thereof and the planning and administration of Crown land.

DEFINITION

Crown land, for the purposes of this section, is defined as all land under Order-in-Council designated as: Provincial Park, Provincial Forest, Ecological Reserve, Wildlife Management Area, and Community Pasture, plus all other land administered by Manitoba Natural Resources and Manitoba Agriculture under "The Crown Lands Act." In addition, all waterbodies, streams, rivers, and creeks are considered Crown lands except where original title has confirmed the lake bed or stream bed to an individual.

ACTS AFFECTING CROWN LANDS

There are a variety of acts which affect the administration and management of Crown lands. For the purposes here, the principal acts which govern use and management of these lands are:

1. The Crown Lands Act,
2. The Fisheries Act,
3. The Forest Act,
4. The Provincial Park Lands Act,
5. The Water Power Act,
6. The Rivers and Streams Act,
7. The Wildlife Act,
8. The Water Resources Administration Act, and
9. The Ecological Reserves Act.

MANAGEMENT AND ADMINISTRATION OF CROWN LAND

The actual management and administration of Crown land is shared between two Departments of Government; Manitoba Natural Resources and Manitoba Agriculture. Agricultural Crown Lands has been assigned the functions and related administration pertaining to the issuance of agricultural leases and permits of occupation or use of those Crown lands which are designated as:

1. primarily agricultural lands, and

2. multiple use lands which may be used for agricultural purposes on an interim or secondary use basis.

The principle responsibility for Crown land remains with Manitoba Natural Resources, which administers The Crown Lands Act excepting those specific sections under the responsibility of the Minister of Agriculture.

The Minister of Natural Resources is responsible for administration, direction and control of the surveys of Crown lands. Survey monuments defining Township, Section and Quarter Section corners have been established throughout the Planning District.

The protection of the township survey fabric, the primary function of which is to support the transferring of rights in land via The Real Property Act or The Crown Lands Act, is essential to efficient and effective land administration. No system, purporting to give evidence of the ownership of land, is complete if one cannot determine what land is being conveyed or where its boundaries are located. Boundaries, once defined, are a matter of law and the survey monument is the vital link between the ground and the administrative record.

CROWN LAND CLASSIFICATION AND PLANNING

Crown land is exempt from the Planning Act and is under the jurisdiction of the Manitoba government as governed by the various acts of the Legislature mentioned above.

The planning of Crown land in the southern portion of the Province is the responsibility of the Crown Land Classification Committee, (CLCC). This is an Interdepartmental Committee with representation from Manitoba Agriculture, Natural Resources, Northern Affairs, Energy and Mines, Rural Development and Environment. The CLCC reports to and receives their direction from the Provincial Land Use Committee of Cabinet.

At the request of a Council or when a Planning District has been established the Crown Land Classification Committee will prepare, in consultation with Council or the Planning Board, a Provincial Crown Land Plan for the Area.

INVENTORY

In the Rossburn Planning District there are approximately 6,864 hectares of Crown land, constituting approximately 9 percent of the land base of the District (Map 8). Parcels to small to be shown of Map 8 are described in Table 2.

PRESENT COMMITMENTS

In the Planning District, 49 percent of the Crown lands (3,330 hectares/8,230 acres) are committed to agricultural purposes by lease or permit. A further 10 percent are committed to wildlife purposes by Order-in-Council inclusion in the Parkland Wildlife Management Area, or by reservation for wildlife purposes or lease to Ducks Unlimited (685 hectares/1,693 acres in total). One mineral commitment, six Highways commitments and one General Permit are in effect on small parcels.

It must be noted that the commitment of Crown land is a dynamic process with leases and permits being issued, expiring, being renewed, cancelled and dropped. This occurrence is a day-to-day administrative process being actioned by various departments of government. The following Table 1 and Map 8 illustrate for the District the commitment of Crown lands by the various leases, permits and Orders-in-Council in effect as of April 5, 1989.

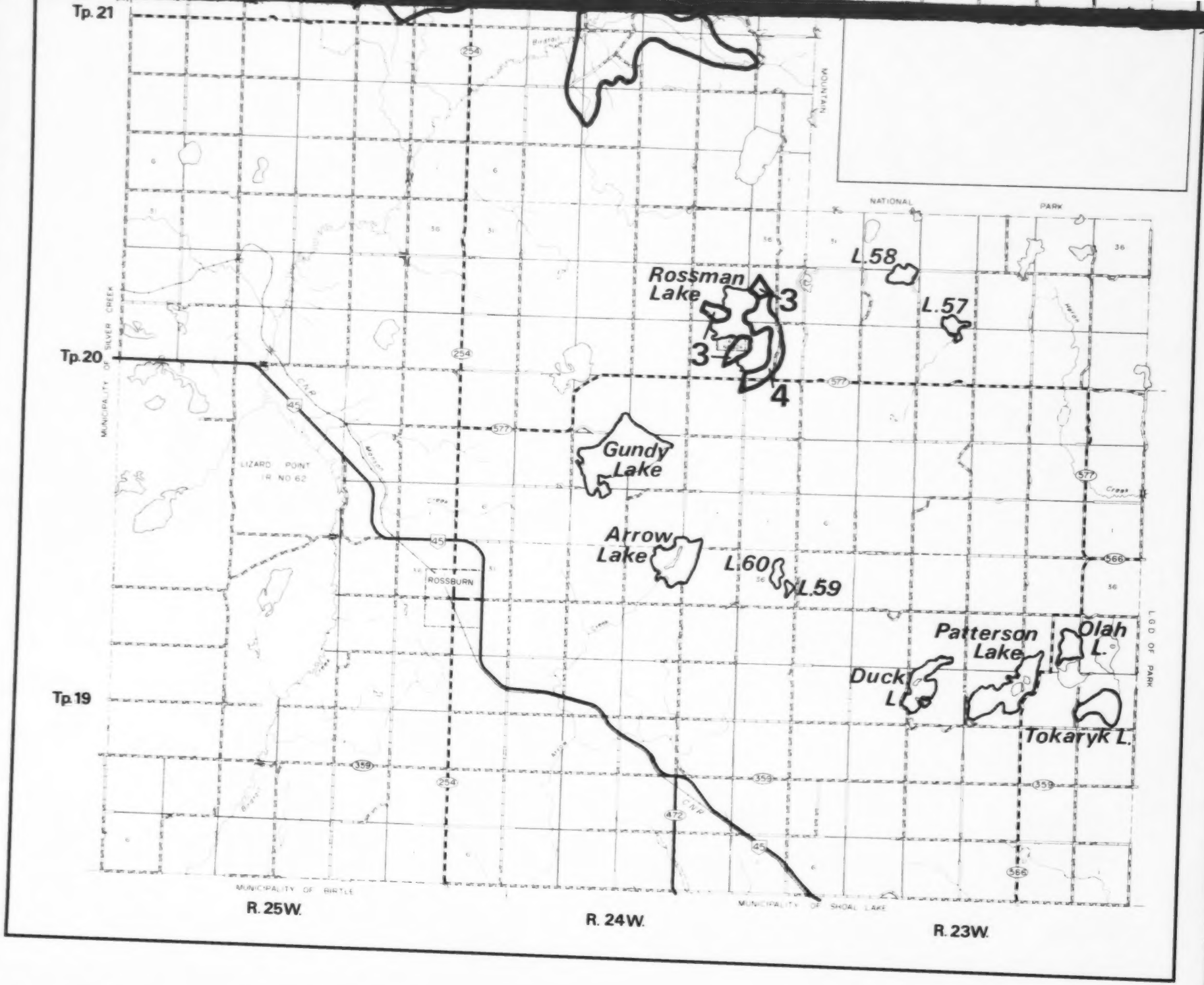
Table 1. Crown Land Commitments in the Rossburn Planning District at April 5, 1989

Commitment Type	Number of Parcels	Area	
		Hectares	Acres
1. Agricultural Commitments			
Forage Lease	30	3,265	8,070
Renewable Hay Permit	1	65	160
SUBTOTAL	31	3,330	8,230
2. Wildlife Commitments			
Wildlife Management Area	3	491	1,213
Wildlife Refuge Reservation	1	65	160
Miscellaneous Lease (Ducks Unlimited)	7	129	320
SUBTOTAL	11	685	1,693
3. Other			
Highways Commitments	6	6	15
Mineral Commitments	1	4	10
General Permit	1	4	10
SUBTOTAL	8	14	35
TOTAL COMMITMENTS *	50	4,029	9,958
TOTAL CROWN LANDS		6,864	16,960

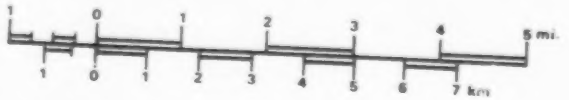
* Some parcels of land contain more than one form of commitment. No adjustment has been made in this total to eliminate this duplication.

Table 2. Small Crown Land Parcels in the Rossburn Planning District (excepting roads, drains and other water control works)

Description	Detail	Area	Roll #
Pt. SE 01-19-24W	All that part lying northeast of road.	0.19 a	1800
Pt. NE 11-19-24W	All that part lying southwest of road.	0.30 a	25400
Pt. SE 11-19-24W	All that part lying south of road.	2.16 a	25800
Pt. SE 19-19-24W	All that part lying north of road.	1.61 a	30100
Pt. NE 13-20-24W	Radio tower site	0.8 a	77900
Pt. SE 17-20-24W	Road fragmented	0.6 a	80200
Pt. NE and Pt. NW 02-20-25W	Land covered by waters of Duck Lake and Lake B.	~ 1 a	


Tp. 21
Tp. 20
Tp. 19
R. 25W.
R. 24W.
R. 23W.
Rossman Lake
L.58
L.57
Gundy Lake
Arrow Lake
L.60
L.59
Patterson Lake
Olah L.
Duck L.
Tokaryk L.
ROSSBURN
LIZARD POINT I.R. NO 62
MUNICIPALITY OF SILVER CREEK
MUNICIPALITY OF BIRTLE
MUNICIPALITY OF SHOAL LAKE
NATIONAL PARK
LGD OF PARK
MOUNTAIN

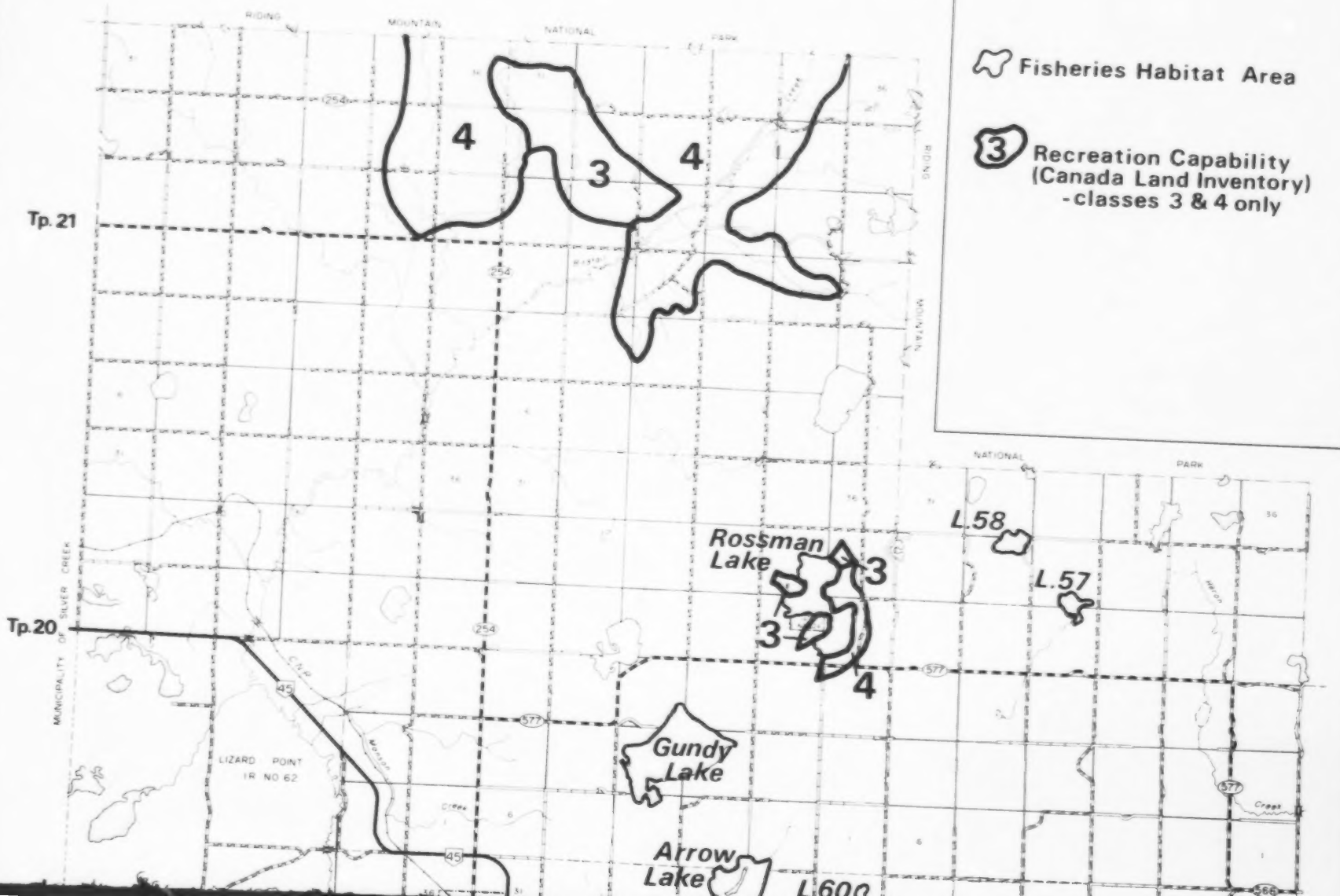
ROSSBURN PLANNING DISTRICT

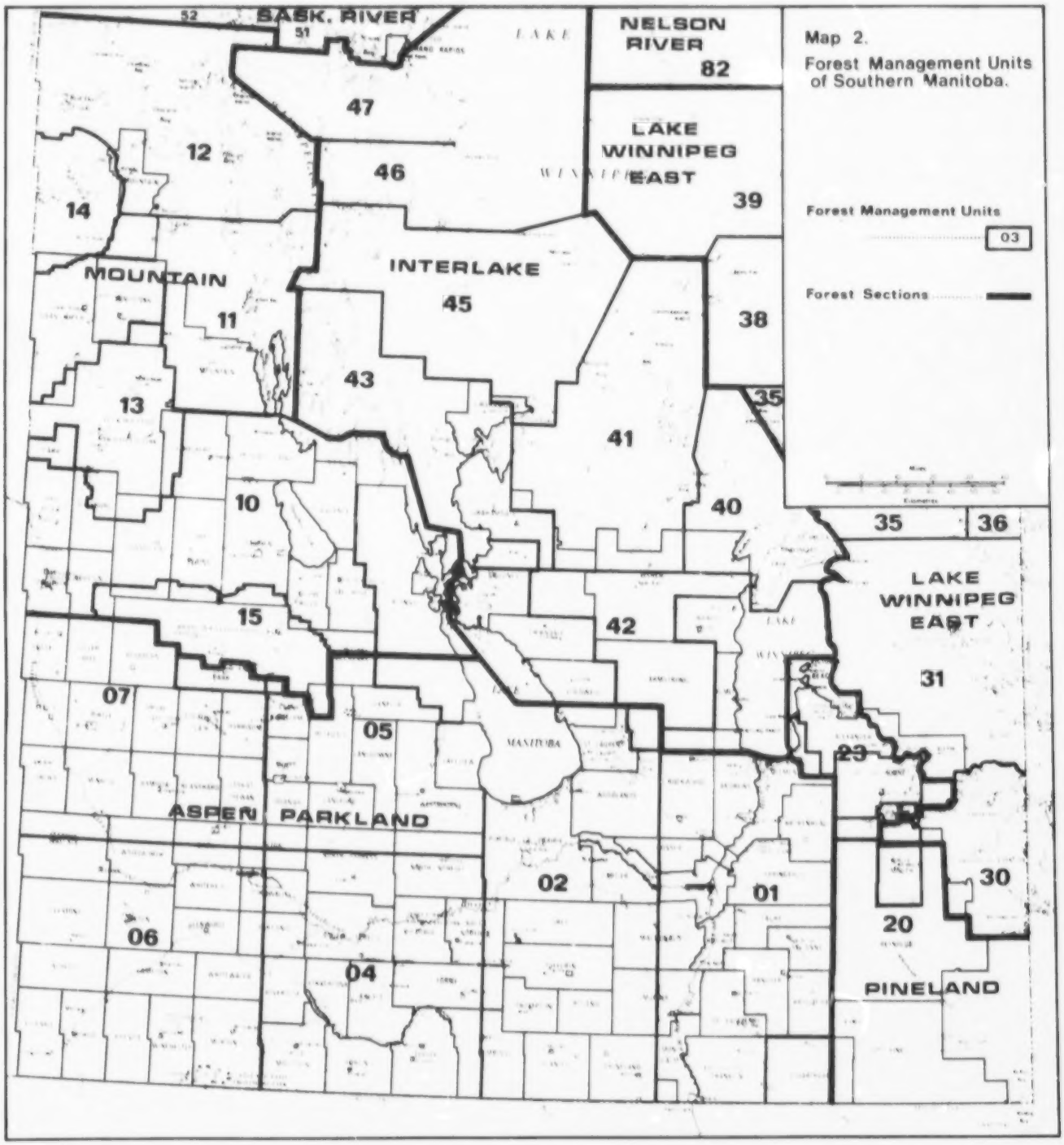


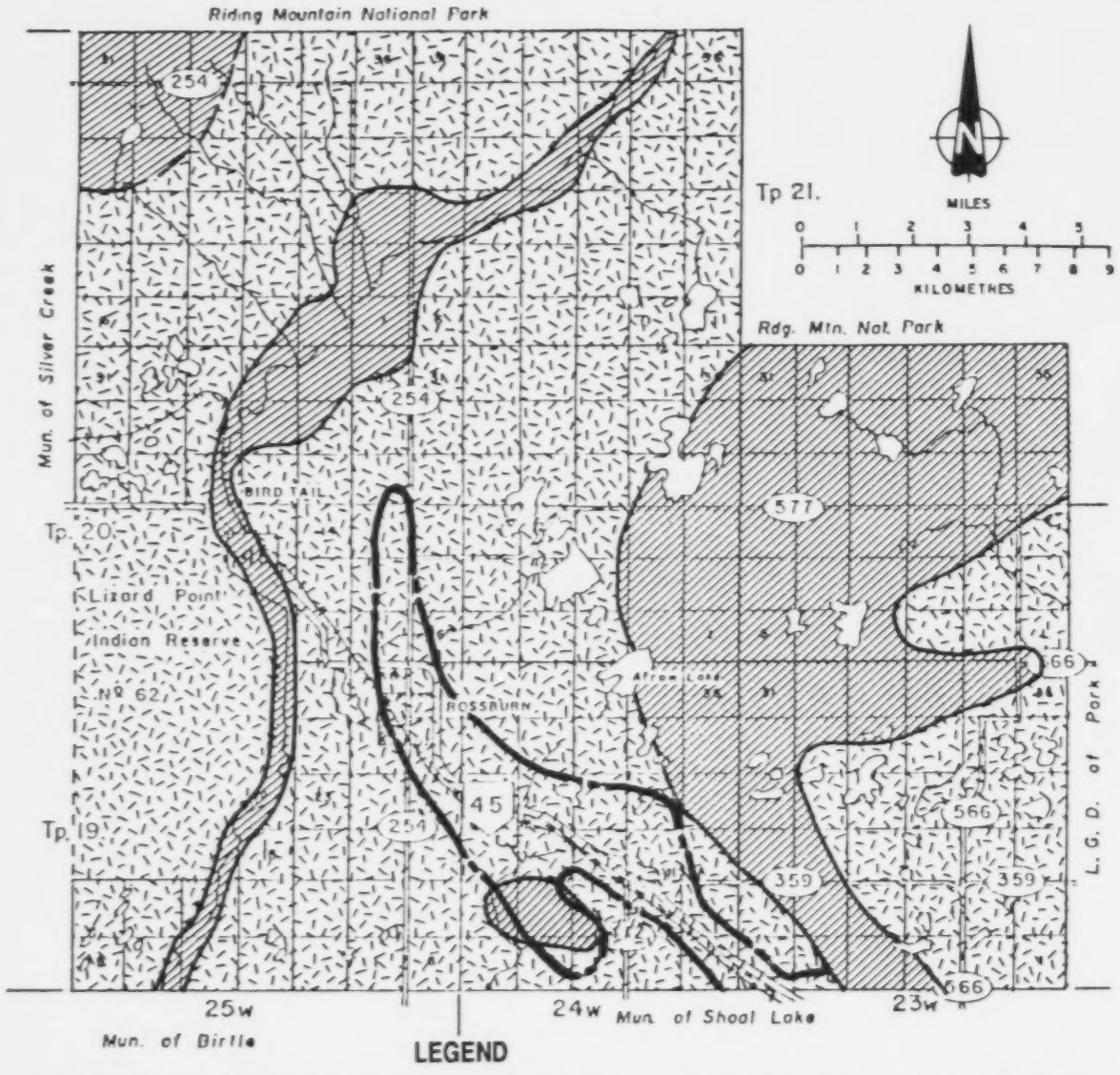
Map 1
Fisheries Habitat Areas and Recreation Capability

Fisheries Habitat Area

(3) Recreation Capability (Canada Land Inventory) -classes 3 & 4 only




SASK. RIVER
52
51
NELSON RIVER
82
47
12
46
LAKE WINNIPEG EAST
39
14
INTERLAKE
45
MOUNTAIN
11
38
43
13
41
35
10
40
35
36
LAKE WINNIPEG EAST
15
42
31
07
05
MANITOBA
23
ASPEN PARKLAND
02
01
30
06
20
04
PINELAND
Map 2.
Forest Management Units of Southern Manitoba.
Forest Management Units
03
Forest Sections



LEGEND

LENSES OF SAND AND GRAVEL : Isolated lenses of sand and gravel in till and other surficial deposits. Depth to the aquifers ranges from less than 5 m (15 ft.) to more than 60 m (200 ft.) below ground level. Well yield ranges from 0.2 L/s (litres per second) to 1.5 L/s (3 to 20 I.G.P.M.).

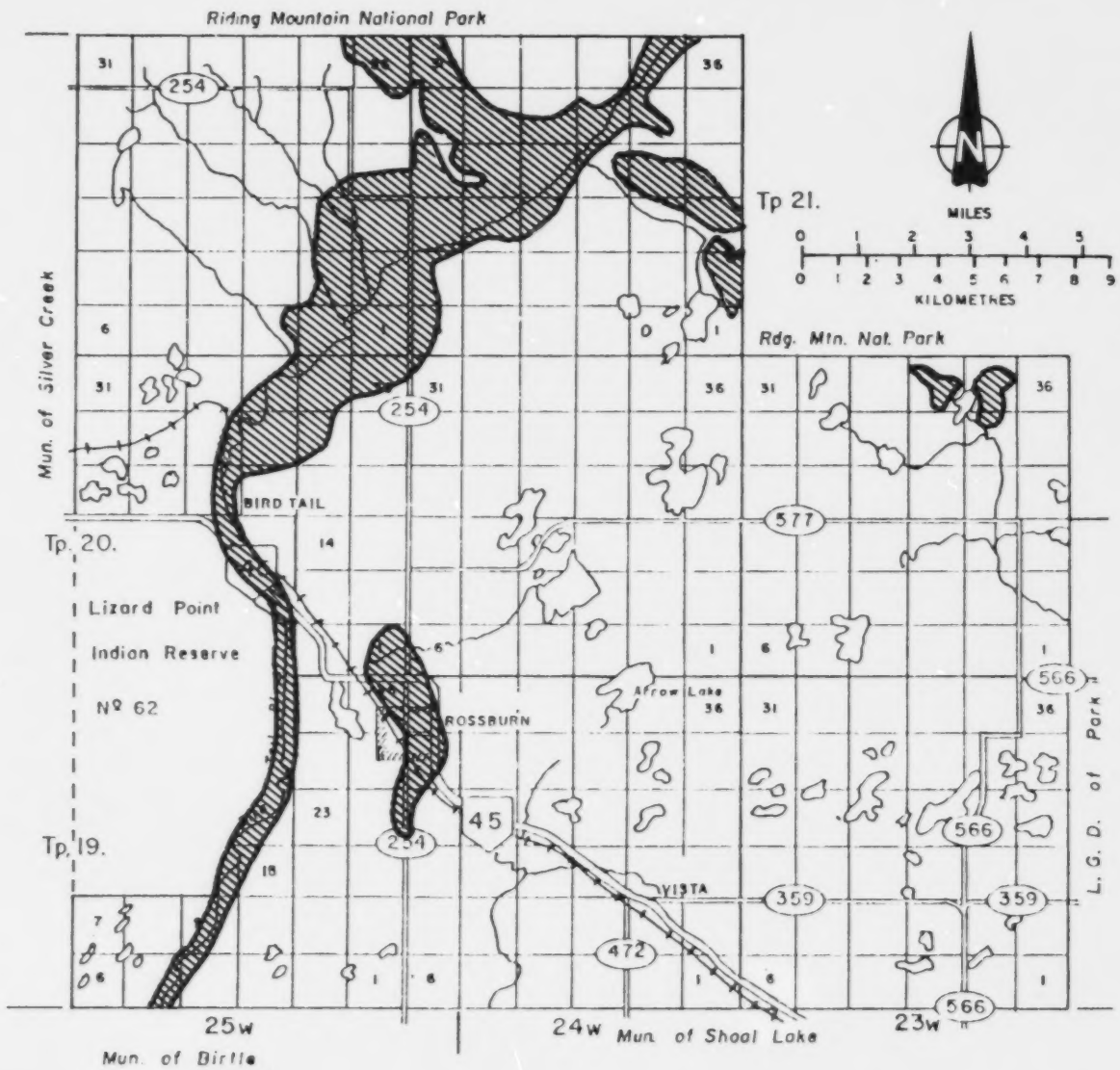
NOTE : Sand and gravel aquifers are the most common aquifers in these areas. Shale aquifers occur in the shale bedrock but may be at considerably greater depth than the sand and gravel aquifers.

SHALE : The aquifers are formed by fractured shale zones in the shale bedrock. The depth to the shale varies considerably and in most of the area ranges from 40 m to 60 m (130 to 200 ft.) In some places the shale aquifers are at more than 90 m (300 ft.) In the vicinity of Rossburn and south and southeast of it the depth to shale is less than 20 m (65 ft.) Well yield in most of the area is in the 0.5 L/s to 1.5 L/s range (7 to 20 I.G.P.M.).

BOUNDARY OF FAIRLY HIGH YIELD SHALE AQUIFER AREA : Well yield ranging from 2 L/s to 15 L/s (25 to 200 I.G.P.M.) is common in this area.

MAP 3

DRAWN: J. MAMOTT	Manitoba Natural Resources	ROSSBURN PLANNING DISTRICT
CHECKED:	Water Resources	**AQUIFERS**
PREPARED: M. RUTULIS	SUBMITTED: L. Bray — APPROVED:	SCALE: AS SHOWN — DATE: 89 03 23 — SHEET: 2 OF 3 — FILE NO: 90-1-7-1149



LEGEND

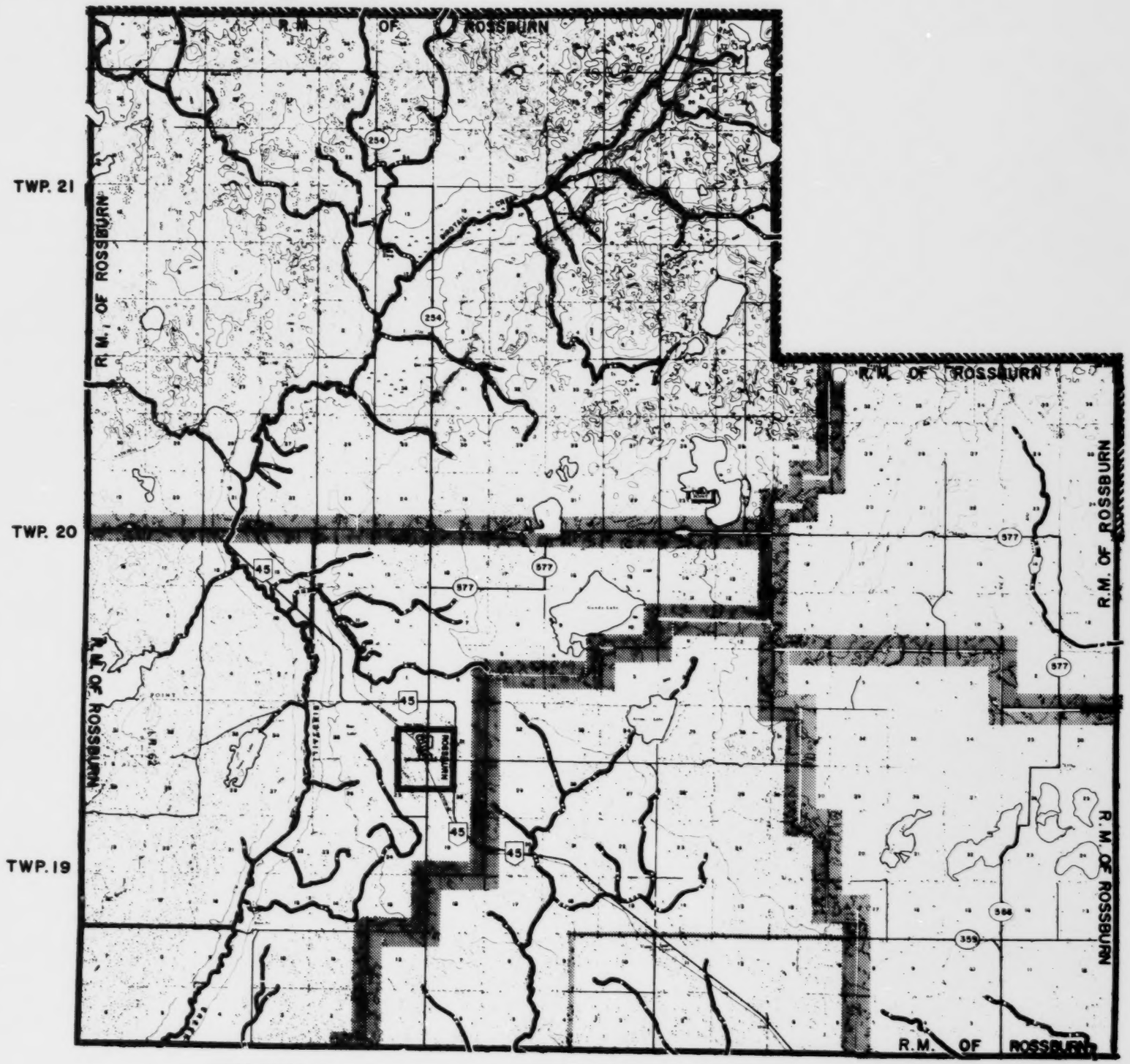
GROUNDWATER POLLUTION HAZARD AREA: unconfined aquifers, confined aquifers at less than 6m (metres) below ground surface.

NOTE: Detailed field investigations may show that groundwater pollution hazard does not exist in some of the indicated areas or parts thereof.

MAP 4

DRAWN: J MAMOTT	Manitoba Natural Resources	ROSSBURN PLANNING DISTRICT
CHECKED	Water Resources	**GROUNDWATER POLLUTION HAZARD AREAS**
PREPARED: M RUTULIS	SUBMITTED: O. Gray	APPROVED
SCALE: AS SHOWN	DATE: 89 03 23	SHEET: 3 of 3
FILE NO: 90-1-7-1149		

Map 5
Surface Drainage Systems



LEGEND

WATER COURSE
- 1st ORDER DRAINS
- 2nd ORDER DRAINS
- 3rd ORDER DRAINS
- 4th ORDER DRAINS
- 5th ORDER DRAINS
- 6th ORDER DRAINS
- 7th. ORDER DRAINS

- LIMITS OF DRAINAGE AREA
- CITY, TOWN AND MUNICIPAL BOUNDARIES
- PROVINCIAL TRUNK HIGHWAYS (2)
- PROVINCIAL ROADS (513)
- SUBDIVISION BOUNDARIES
- INDIAN RESERVE & PROVINCIAL BOUNDARIES

ROSSBURN PLANNING DISTRICT

SCALE IN MILES
0 1 2 3 4 5

SCALE IN KILOMETRES
0 1 2 3 4 5 6 7 8

ROSSBURN PLANNING DISTRICT

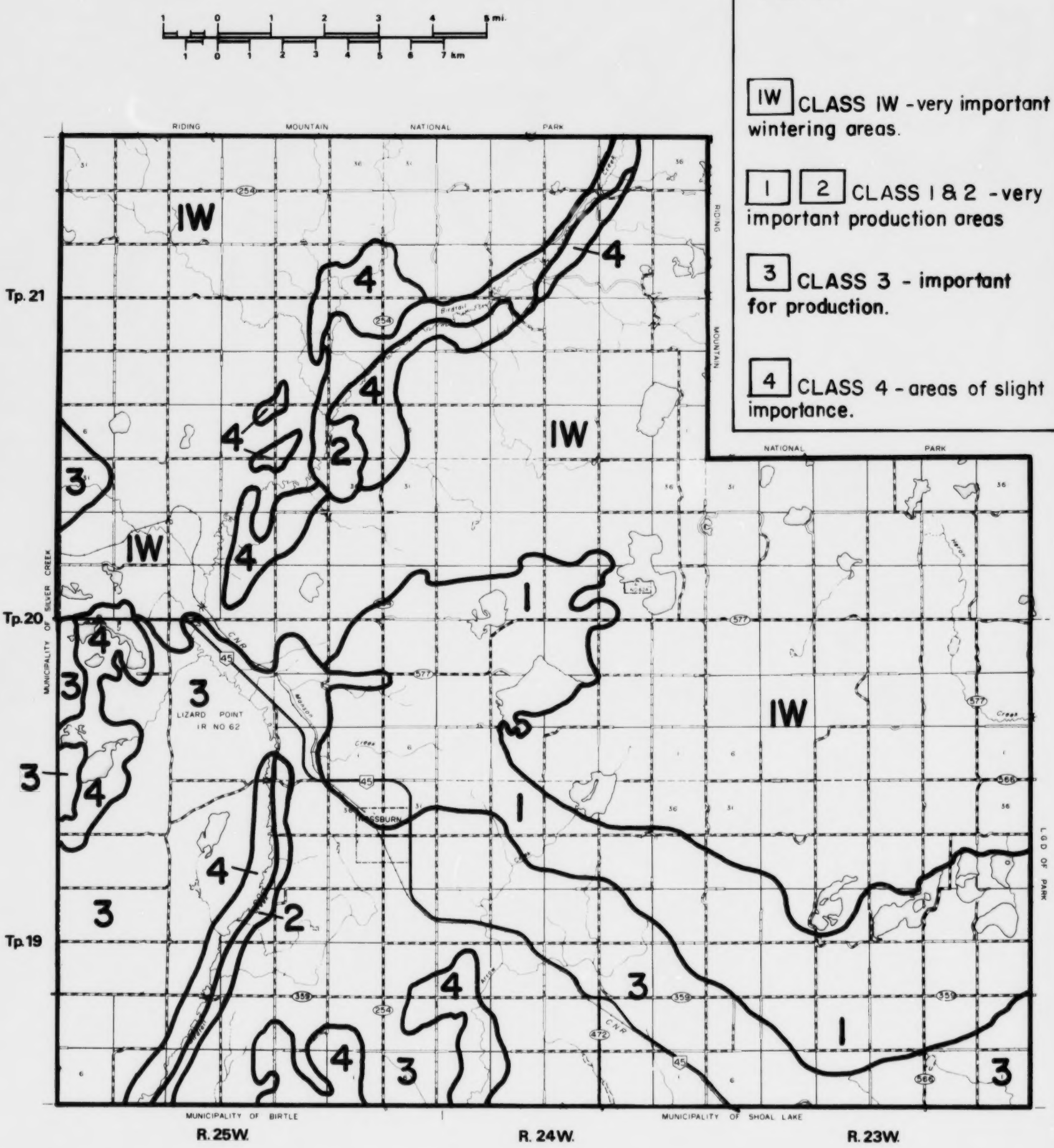
MAP 6.
SIGNIFICANT UNGULATE HABITAT

IW CLASS IW - very important wintering areas.

1 2 CLASS 1 & 2 - very important production areas

3 CLASS 3 - important for production.

4 CLASS 4 - areas of slight importance.

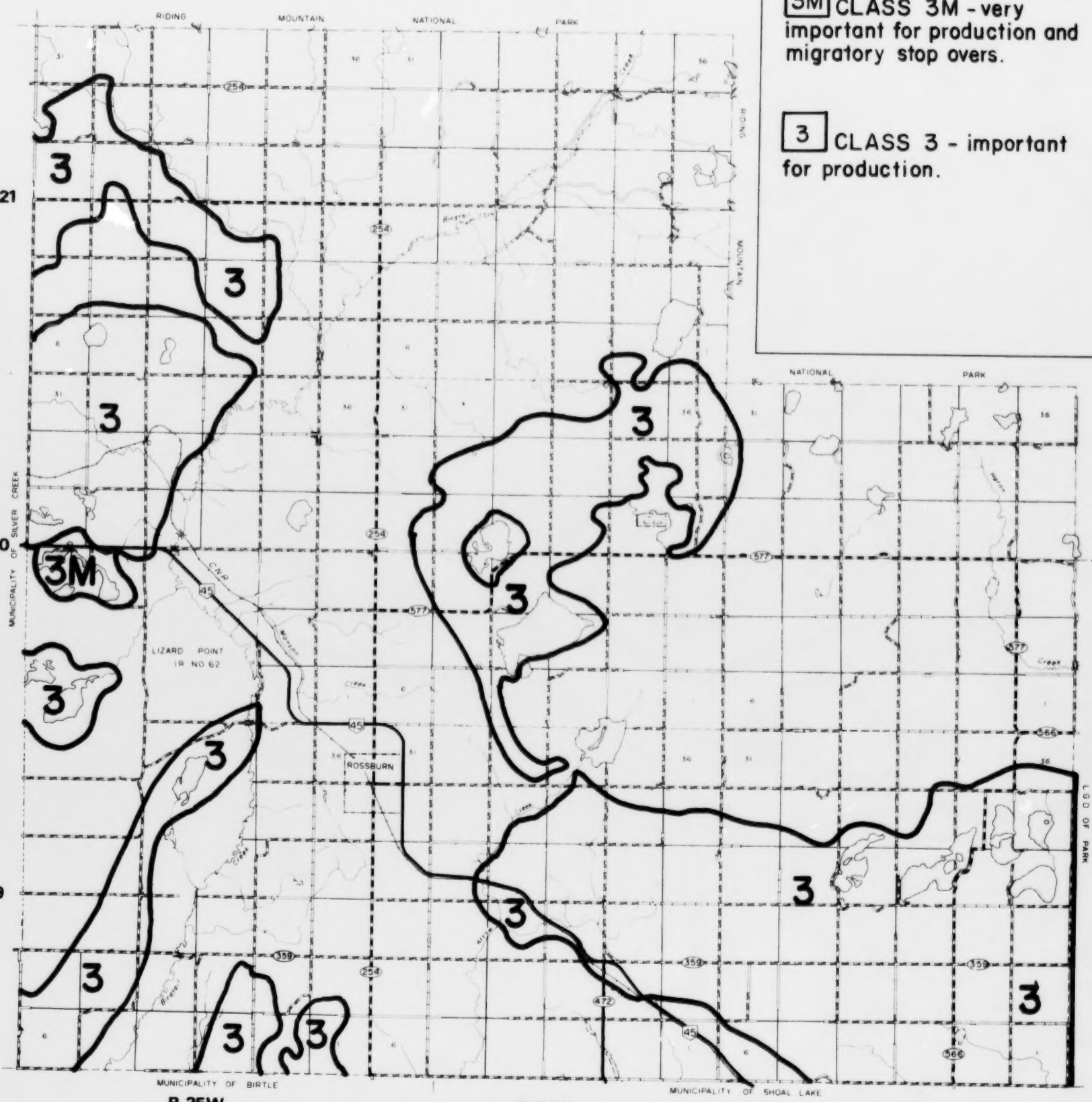


ROSSBURN PLANNING DISTRICT

MAP 7.
SIGNIFICANT
WATERFOWL
HABITAT

3M CLASS 3M - very important for production and migratory stop overs.

3 CLASS 3 - important for production.



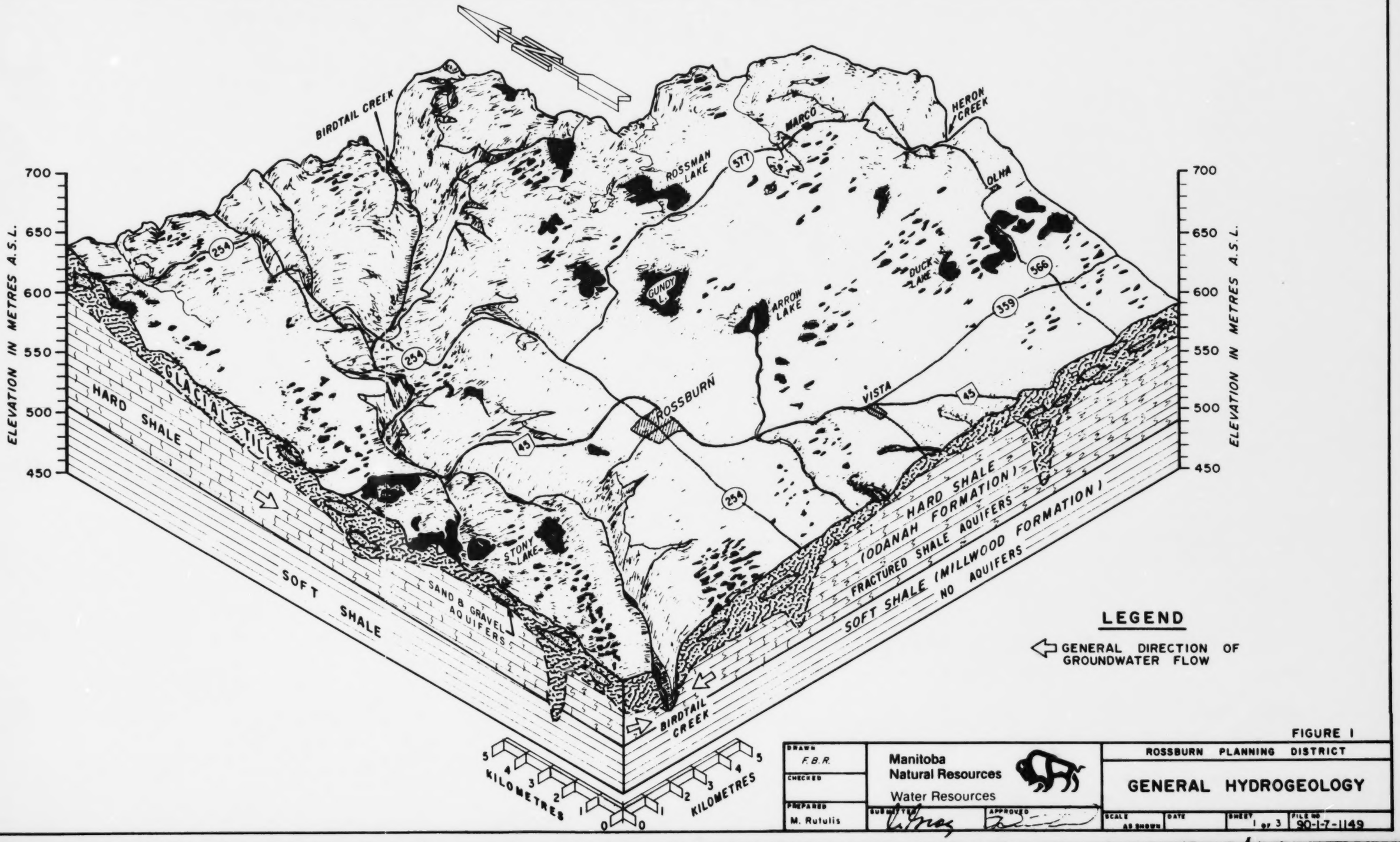


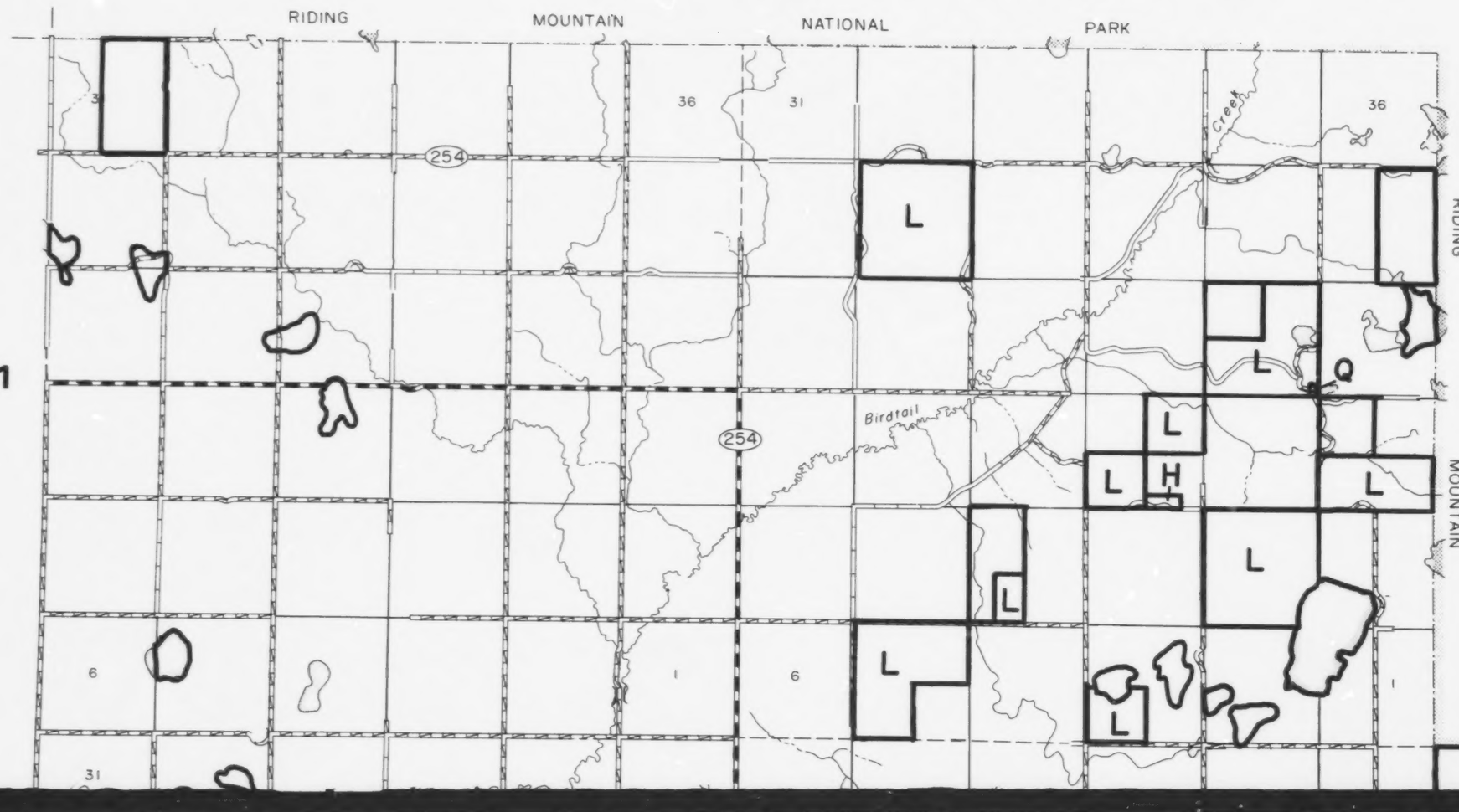
FIGURE 1

DRAWN F.B.R.	Manitoba Natural Resources	ROSSBURN PLANNING DISTRICT
CHECKED	Water Resources	GENERAL HYDROGEOLOGY
PREPARED M. Rutulis	SUBMITTED / APPROVED	SCALE AS SHOWN · DATE · SHEET 1 of 3 · FILE NO 90-1-7-1149

ROSSBURN PLANNING DISTRICT

1 0 1 2 3 4 5 mi.

1 0 1 2 3 4 5 6 7 km



MAP 8.
CROWN LANDS & CR
COMMITMENTS, APR

Provincial Crown Land

Crown Land Commitments

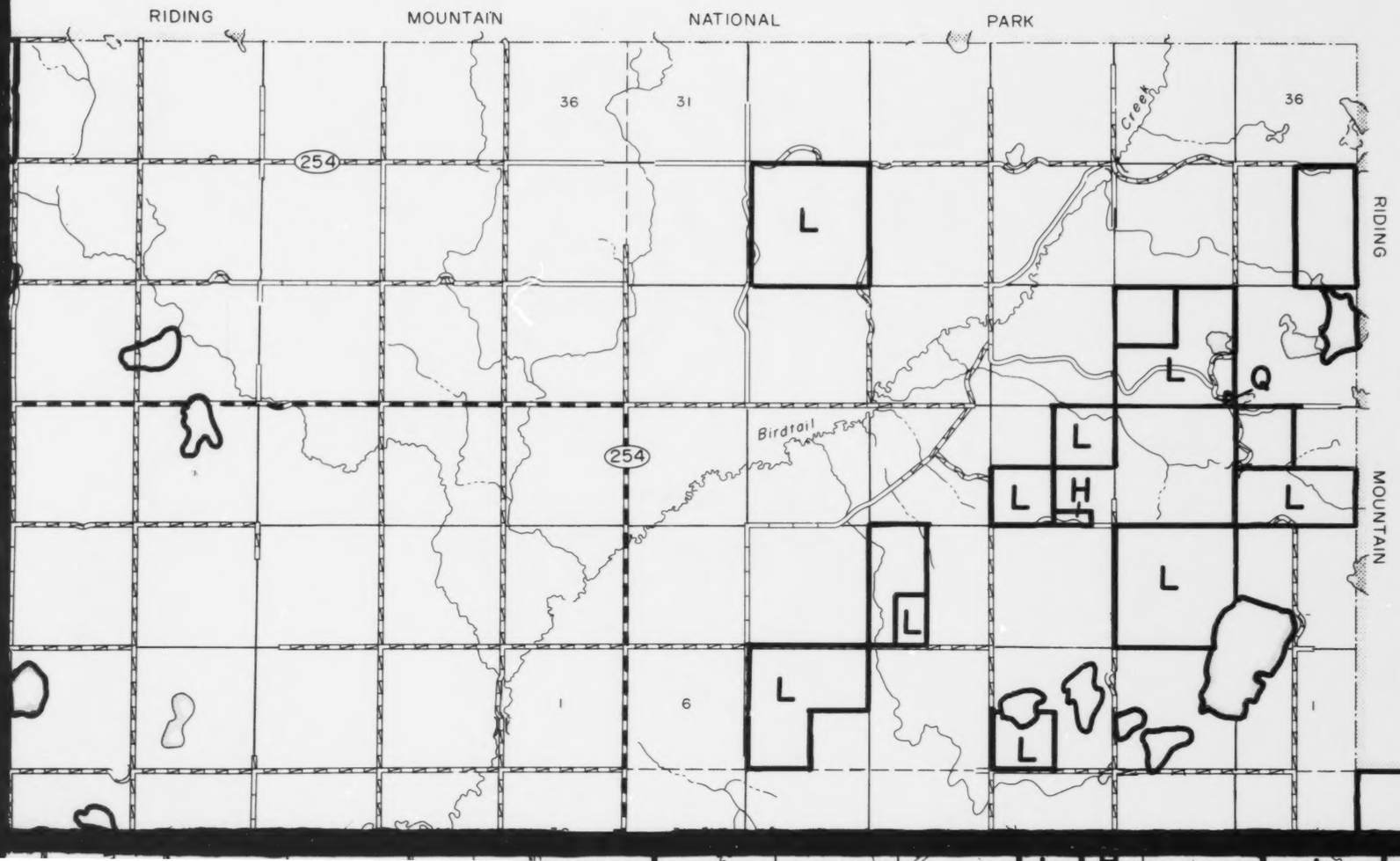
AGRICULTURAL
- Lease .....
- Permit .....

OTHER
- Minerals Reservation .....
- Miscellaneous Lease .....
- Wildlife Refuge Reservation
- Wildlife Management Area (C
- General Permit .....
- Highways Reservation ....

BURN PLANNING DISTRICT

1 0 1 2 3 4 5 mi.

1 0 1 2 3 4 5 6 7 km



MAP 8.
CROWN LANDS & CROWN LAND COMMITMENTS, APRIL 1989.

Provincial Crown Land

Crown Land Commitments

AGRICULTURAL

- Lease L
- Permit ..... P

OTHER

- Minerals Reservation ..... Q
- Miscellaneous Lease ..... M
- Wildlife Refuge Reservation ..... R
- Wildlife Management Area (O/C) ..... W
- General Permit ..... G
- Highways Reservation ..... H

Tp.20

MUNICIPALITY OF SILVER CREEK

NATIONAL

PA

NTAIN

L

W

M

H

6

1

31

36

254

577

45

C.N.R.

LIZARD POINT
IR NO 62

Monson Creek

ROSSBURN

Creek

Creek

Tp.19

OUNTAIN

NATIONAL PARK

L.G.D. OF PARK

LIZARD POINT
IR NO 62

IR NO 62A

ROSSBURN

C.N.R.

Manson Creek

Heron Creek

Creek

Creek

Creek

254

45

577

577

577

500

36 31 6 1

36 31 6 1

36 31 6 1

L W M G H

Tp. 20

Tp. 19

MUNICIPALITY OF SILVER CR

LIZARD POINT
IR NO 62

IR NO 62A

ROSSBURN

C.N.R.

Marson Creek

Creek

Arrow

Birdtail Creek

254

45

577

359

472

PR

W

L

M

H

MUNICIPALITY OF BIRTLE

MUNICIPALITY OF SHOAL LAKE

R. 25W.

R. 24W.

R. 23W.

LIZARD POINT
IR NO 62

ROSSBURN

IR NO 62A

C.N.R.

Manson Creek

Creek

Creek

Arrow Creek

Creek

Birdtail Creek

254

45

577

359

472

566

PR

W

L

M

G

H

MUNICIPALITY OF BIRTLE

MUNICIPALITY OF SHOAL LAKE

L.G.D. OF PARK

R. 25W.

R. 24W.

R. 23W.